2. FINANCIAL DEVELOPMENTS IN 2001

Net income of major energy companies that report to EIA's Financial Reporting System (FRS)[9] totaled $37.7 billion in 2001, down 29 percent from the record high net income of $53.2 billion in 2000 (Table 1). Profitability of the FRS companies in 2001, as measured by return on equity,[10] dipped noticeably (Figure 3), but at 13.3 percent exceeded the historical 12.6-percent average. The FRS companies' financial performance in 2001, though off from the prior year, was much better than other U.S. industrial corporations generally. Overall, U.S. industrial corporations (as represented by the S&P Industrials[11]), suffered a 56-percent decline in net income. Profitability of the S&P Industrials was the second-worst in at least 30 years.

The interpretation of financial results is affected by a large amount of unusual items in 2001. Unusual items are composed of gains and charges recognized in a company's income statement that are of a non-recurring nature and generally unrelated to ongoing operations. In 2001, unusual items reduced net income by $13.5 billion, but in 2000, the comparable reduction was a much smaller $2.3 billion. Three categories of unusual items accounted for most of the 2001 amount:

First, oil and gas producers reduced asset values carried on their books, mainly in response to lower oil and natural gas prices at the end of 2001 compared to prices at the end of 2000 (with $6.4 billion charged largely against oil and gas production operations).

Second, merger-related expenses and writedowns associated with the assimilation and sorting of assets gained in the mergers of Chevron and Texaco, El Paso and Coastal, and Exxon and Mobil were taken (with $2.7 billion against various lines of business and corporate overhead).

Third, the treatment of USX's (now Marathon Oil in the FRS respondent group) spinoff of U.S. Steel and Williams Companies' spinoff of Williams Communications as discontinued operations in 2001 had a negative $2.5-billion impact on net income from their nonenergy line of business.

Excluding unusual items, the FRS companies' net income in 2001 was $51.2 billion, 8 percent below the level of 2000.

Enron, an FRS respondent since 1992, was not included in the FRS for the 2001 reporting year due to the company's bankruptcy filing in December, 2001. Interpretation of results in the "other energy" line of business can be affected by the absence of Enron from the FRS. Whenever this occurs, the impact of Enron's absence will be indicated by reporting two results, one that includes Enron and one that excludes Enron.

Financial results varied across lines of business in 2001. Most of the gains in income between 2000 and 2001 came from downstream petroleum (refining, marketing, and transport) operations. These gains were offset by lower upstream (oil and gas production) income stemming from lower oil prices. Declines in income from nonenergy businesses, which exceeded 100 percent, also contributed to the decline in overall net income.

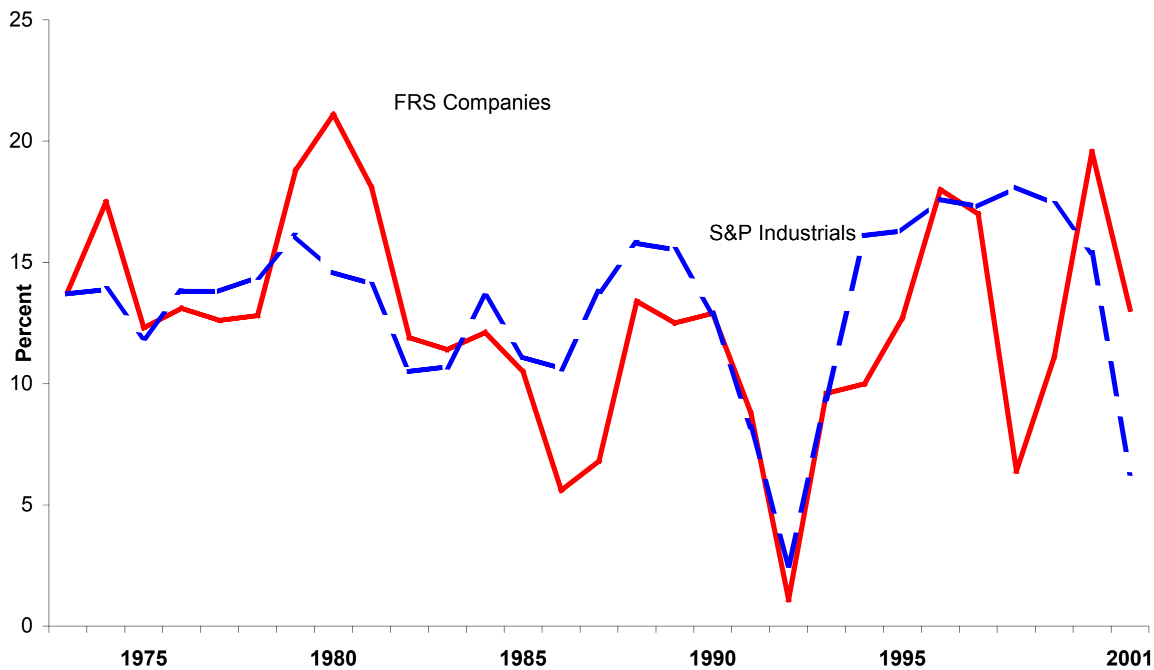
Table 1. Consolidated Income Statement for FRS Companies and the S&P Industrials, 2000-2001
(Billion Dollars)

Income Statement Items	FRS Companies			S&P Industrials		
	2000	2001	Percent Change 2000-2001	2000	2001	Percent Change 2000-2001
Operating Revenues	910.6	803.7	-11.7	4,712.6	4,841.7	2.7
Operating Expenses	-826.8	-735.6	-11.0	-4,146.2	-4,386.4	5.8
Operating Income	83.8	68.1	-18.7	566.4	455.3	-19.6
Interest Expense	-10.6	-9.1	-14.3	-97.7	-103.0	5.4
Other Revenue (Expense)	15.0	6.3	-57.9	24.9	-104.2	--
Income Tax Expense	-35.0	-27.7	-21.0	-184.9	-112.2	-39.3
Net Income	53.2	37.7	-29.1	308.7	136.0	-56.0
Net Income Excluding Unusual Items	55.5	51.2	-7.7	NA	NA	

Note: Sum of components may not equal total due to independent rounding. Percent changes were calculated from unrounded data. NA= not available. -- = not meaningful

Sources: **FRS Companies**: Energy Information Administration Form EIA-28 (Financial Reporting System); **S&P Industrials**: Compustat PC Plus, a service of Standard and Poor's.

Figure 3. Return on Equity for FRS Companies and the S&P Industrials, 1973-2001



Sources: FRS Companies: Energy Information Administration, Form EIA-28 (Financial Reporting System). S&P Industrials and S&P 500: Compustat PC Plus, a service of Standard and Poor's. S&P Industrials not available after 2000.

Income and Cash Flow

Petroleum Refining and Marketing Provide Earnings Growth

Net income[12] from U.S. refining/marketing operations of the FRS companies, excluding unusual items, totaled $12.8 billion in 2001, a 48-percent increase from net income in 2000 (Table 2). Most of this growth in income was achieved in the first half of 2001. Colder-than-normal temperatures in the 2000 to 2001 winter added to heating oil demand and also contributed to increased natural gas prices. High natural gas prices during the first half of 2001 induced electric utilities and other industrial facilities to switch fuels from natural gas to petroleum, adding to overall petroleum demand. Gasoline demand was rising into the driving season when temporary supply shortfalls hit some areas of the country, resulting in spikes in gasoline prices. As a result, the spread between refined product prices and crude oil input costs soared in the first half of 2001.

Table 2. Contributions to Net Income by Line of Business for FRS Companies, 2000-2001
(Million Dollars)

	Net Income			Net Income Excluding Unusual Items		
Line of Business	2000	2001	Percent Change 2000-2001	2000	2001	Percent Change 2000-2001
Petroleum[a]						
U.S. Petroleum						
Production	21,865	17,646	-19.3	22,031	20,635	-6.3
Refining/Marketing	7,659	11,951	56.0	8,657	12,829	48.2
Pipelines	2,314	3,345	44.6	2,389	3,754	57.1
Total U.S. Petroleum	31,838	32,942	3.5	33,077	37,218	12.5
Foreign Petroleum[a]						
Production	18,471	14,558	-21.2	18,516	16,101	-13.0
Refining/Marketing	2,900	3,115	7.4	3,065	3,239	5.7
International Marine	49	176	259.2	49	176	259.2
Total Foreign Petroleum	21,420	17,849	-16.7	21,630	19,516	-9.8
Total Petroleum	53,258	50,791	-4.6	54,707	56,734	3.7
Coal	27	134	396.3	34	136	300.0
Other Energy	2,741	1,993	-27.3	2,761	2,000	-27.6
Nonenergy	3,565	-2,726	-176.5	4,535	320	-92.9
Total Allocated	59,591	50,192	-15.8	62,037	59,190	-4.6
Nontraceables and Eliminations	-6,399	-12,457	--	-6,559	-7,975	--
Consolidated Net Income[b]	53,192	37,735	-29.1	55,478	51,215	-7.7

[a]The Petroleum line of business includes natural gas operations.
[b]The total amount of unusual items was -$2,286 million and -$13,480 million in 2000 and 2001, respectively.
-- = Not meaningful.
Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

The second half of 2001 can be fairly described as a reversal of fortune for U.S. refining and marketing. Economic recession cut diesel demand. Airlines were hit by a retreat from air travel following the attacks of September 11 as well as economic recession that cut jet fuel demand. Relatively mild temperatures in the fourth quarter resulted in a lessened demand for heating oil. As a result of these second-half developments, the spread between refined product prices and crude oil input costs fell by 50 percent, or by $8 a barrel, from the second quarter to the fourth quarter of 2001.

The FRS companies' foreign refining/marketing operations did less well than U.S. operations. Net income, excluding unusual items, from the FRS companies' foreign refining/marketing operations totaled $3.2 billion in 2001, up 6 percent. These operations were apparently hit harder by the events of 2001 than were U.S. operations. On the positive side, Exxon Mobil said that, "the improvement was driven by stronger marketing margins, partly offset by weaker European refining margins,"[13] while ChevronTexaco noted that downstream earnings in Asia-Pacific and Africa were up significantly because of improved marketing margins, earnings in Latin America were level, and European earnings were hurt by low margins and lower sales volumes.[14] However, Conoco cited lower refining margins and an April explosion and fire at its UK refinery as reasons for lower foreign downstream earnings in 2001.[15] El Paso, which acquired a refinery in Aruba in its merger with Coastal, also suffered a refinery mishap in 2001, citing "… negative margins in refining resulting from a fire at our Aruba facility in April 2001."[16]

Lower Oil Prices Reduce Upstream Income

Lower oil prices adversely affected U.S. oil and gas production operations of the FRS companies in 2001. Wellhead crude oil prices in the United States declined steadily during the year, from $25 per barrel in February to $22 in September, and then fell sharply to under $16 in December. For the year, U.S. crude oil prices were down $5 per barrel from 2000. Domestic natural gas prices at the wellhead hit an all-time monthly peak of $8.06 per thousand cubic feet in January, 2001, but by December stood at $2.38. For the year, natural gas prices at the wellhead averaged $4.12 which, being about 43 cents higher than the average for 2000, provided a partial offset to lower oil prices. Other offsets included increased oil production by FRS companies, up 8 percent both in the United States and abroad, and increased natural gas production, up 6 percent in both the United States and abroad.

Excluding unusual items, the FRS companies' net income from U.S. oil and gas production was $20.6 billion in 2001, down 6 percent from net income in 2000. In foreign oil and gas production, net income, excluding unusual items, was $16.1 billion in 2001, a 13-percent decline. The somewhat steeper decline abroad reflected the higher proportion of oil in foreign upstream operations, 61 percent vs. 46 percent, and consequent greater exposure to lower oil prices.

Pipelines Deliver Strong Financial Results

The pipeline networks of the FRS companies registered a healthy increase in net income, excluding unusual items, of 57 percent between 2000 and 2001.

The FRS companies are in two groups with respect to pipeline ownership: a company is either specialized in natural gas pipelines or liquids (crude oil and petroleum products) pipelines. Companies with significant natural gas pipeline ownership have tended to combine these operations with complementary business activities such as natural gas trading, natural gas gathering (i.e., inter-field collection of gas production), and natural gas processing. This development followed the full deregulation of U.S. natural gas markets in 1993. Full deregulation provided opportunities for natural gas trading and had the effect of reducing the role of interstate natural gas pipelines to that of common carriers. The split between revenues from transportation services and other revenues of FRS companies that own natural gas pipelines reflects the growth in complementary businesses: between 1991 and 2001, transport revenues grew 20 percent while other revenues increased 30 percent.

In contrast, liquids pipelines have remained largely rate-regulated. The Trans Alaska Pipeline System (TAPS), which transports oil from Alaska's North Slope to the port of Valdez, is owned by FRS companies as is a major share of lower 48 pipeline capacity.

Between the two groups of FRS pipeline owners, liquids pipelines registered somewhat greater growth in net income: 61 percent compared to 56 percent for natural gas pipelines.

Excluding Enron, Other Energy Earnings Unchanged

The "other energy" line of business was originally intended to collect financial information for major energy companies' nonconventional energy activities. In the late 1970's and early 1980's, FRS companies were prominent in the development and production of synfuels (e.g., tar sands, coal gasification/liquefaction, oil shale) and renewable energy resources (e.g., solar, geothermal). When oil prices began declining after 1981 and crashed in 1986, most nonconventional energy prospects became uneconomic. By 1990, only a handful of nonconventional activities remained among the FRS companies.[17]

The composition of the other energy line of business has changed substantially since then. Most of the revenues and investment in other energy now comes from electric power businesses and associated trading activities. Nonconventional energy activity is now largely related to production of oil from tar sands in Canada, geothermal energy production in Asia, and various developmental efforts involving synthetic fuels.

Additionally, the other energy line of business has been the FRS companies' most rapidly growing line of business since the mid-1990's, albeit from a relatively small base. The rapid growth was due to investment in electric power and the increased number of energy services (i.e., natural gas and power) companies in the FRS group.

In 2001, net income from the other energy line of business, excluding unusual items, was $2.0 billion, down 28 percent from net income in 2000. However, this decline is largely traceable to the absence of Enron from the FRS group in 2001. Excluding Enron, net income was nearly flat between 2000 and 2001. (For further detail on the other energy line of business, see the Other Energy section in Chapter 3.)

Results Beyond Energy Turn Down Sharply

The "nonenergy" line of business consists of chemical manufacturing and an agglomeration of businesses outside energy. Net income from the nonenergy line of business fell from $4.5 billion in 2000 to $0.3 billion in 2001, a 93-percent decline. Both segments of the nonenergy line of business did very poorly in 2001.

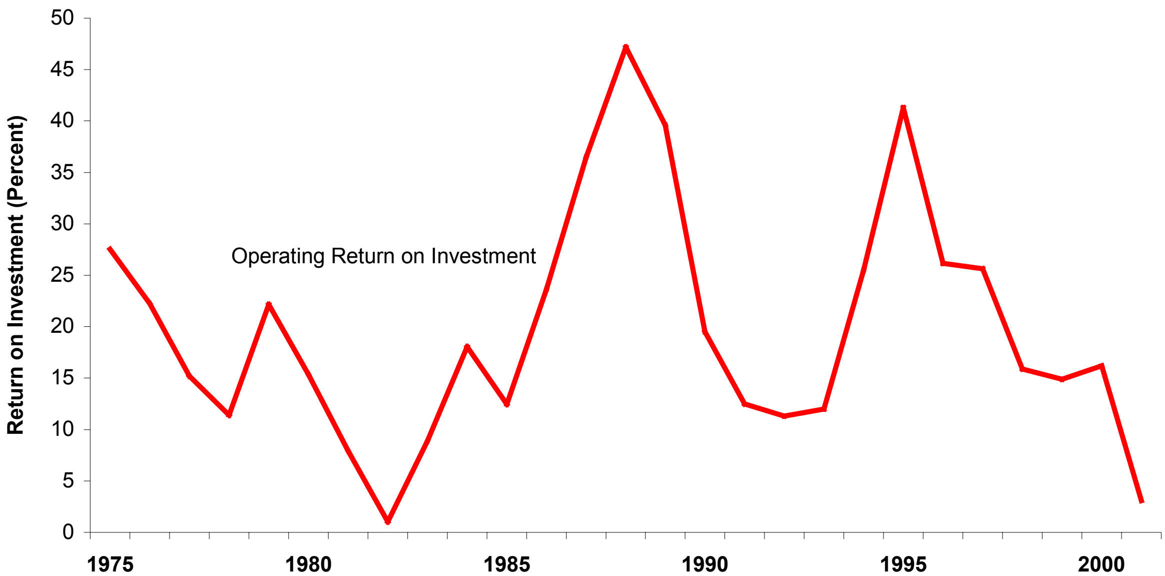
Operating income from the FRS companies' chemical operations,[18] excluding unusual items, was down 77 percent between 2000 and 2001 (Table 3). Continuing a downward trend, the profitability of these operations was at the lowest level since 1982 (Figure 4). Revenues from the FRS companies' chemical operations fell $2.9 billion while operating costs showed little change. Chemical manufacturing was hurt by economic slowdowns and recession, chronic worldwide overcapacity, and high natural gas prices in the first half of 2001.

Table 3. Operating Income in Chemicals and Other Nonenergy Segments for FRS Companies, 2000-2001
(Million Dollars)

Segment	2000	2001	Percent Change 2000-2001
Operating Income, Excluding Unusual Items			
Chemicals	3,794	880	-76.8
Other Nonenergy	3,236	-1,150	--

-- = not meaningful
Sources: Energy Information Administration, Form EIA-28 (Financial Reporting System), except for chemicals segment operating income, which was compiled from company annual reports to shareholders.

Figure 4. Operating Return on Investment in Chemicals for FRS Companies, 1975-2001



Note: Operating return on investment is operating income as a percent of net property, plant, and equipment.
Source: Energy Information Administration, Form EIA-28 (Financial Reporting System), and company annual reports to stockholders.

Every FRS chemical manufacturer reported sharp declines in income. For example, Occidental Petroleum noted that, "Petrochemical margins were under pressure throughout 2001 due to weak demand and significant capacity additions …".[19] Exxon Mobil agreed, saying that, "The business saw higher feedstock and energy costs in North America early in the year as well as weak global demand and industry overcapacity."[20] ChevronTexaco observed that, "Results reflected a protracted period of generally weak demand for commodity chemicals and industry overcapacity."[21]

Other nonenergy consists of diverse enterprises including telecommunications, non-fuel minerals, technology investments, real estate, and insurance. Operating income fell from $3.2 billion in 2000 to a loss of $1.2 billion in 2001. Half of this decline is traceable to the absence of Enron as a 2001 FRS respondent and the absence of U.S. Steel's results due to their spinoff by parent USX (now Marathon

Oil in the FRS respondent group). Declines in income were widespread as established nonenergy businesses were hurt by economic recession and fledgling technology ventures contributed costs but little revenue. Exxon Mobil, for example, noted that earnings from its Chilean copper production were hurt by a significant decline in copper prices.[22] El Paso reported operating losses in their telecommunications business of $72 million in 2001. One exception to this trend was Williams Companies who reported a small but positive operating income due to the absence of heavy losses from the telecommunications business that the company spun off.

Cash Flow at Record Level Despite Decline in Income

Cash flow is the cash realized during a company's fiscal year from ongoing operations. In 2001, the FRS companies' cash flow totaled $89.6 billion (Table 4). This was the highest level in the 1986 to 2001 period (prior to 1986, the measure of funds from operations was working capital rather than cash).

Table 4. Line-of-Business Contributions to Pretax Cash Flow for FRS Companies, 2000-2001
(Billion Dollars)

Contribution to Pretax Cash Flow [a]	2000	2001	Percent Change 2000-2001
Petroleum[b]			
Oil and Gas Production	88.4	85.0	-3.8
Refining, Marketing, and Transport	27.4	34.8	27.1
Coal and Other Energy	4.4	3.3	-24.5
Chemicals	4.5	1.9	-58.3
Other Nonenergy	4.2	-0.1	-102.1
Nontraceable	-6.2	-7.3	--
Total Contribution to Pretax Cash Flow[a]	122.7	116.8	-4.8
Current Income Taxes	-29.6	-24.0	-18.8
Other (Net)	-4.5	-3.2	--
Cash Flow from Operations	88.6	89.6	1.1

[a]Defined as the sum of operating income, depreciation, depletion, and amortization, and dry hole expense.
[b]The Petroleum line of business includes natural gas operations.
-- = Not meaningful.
Note: Sum of components may not equal total due to independent rounding. Percent changes were calculated from unrounded data.
Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

How could cash flow increase when net income fell by $15 billion? The seeming disparity stems from the inclusion of noncash items in the calculation of income. Cash is defined as currency, demand deposits, and interest-bearing assets of less than 30 days maturity. Generally, cash flow from operations is computed by adding to (subtracting from) net income those cost (revenue) items that did not actually involve an outlay (receipt) of cash.[23] Unusual items tend to be of a noncash nature and the value is largely added back to net income in arriving at cash flow. In 2001, unusual items totaled $13.5 billion, which was much more than the $2.3 billion in 2000, thus the net income decline of $15 billion.

Among the lines of business, downstream petroleum stood out as the only positive contributor to growth in cash flow. Cash flow from worldwide oil and gas production was down $3.4 billion, a 4-percent decrease from 2000. Other nonenergy operations, which performed poorly in 2001, went from being a contributor of $4.2 billion to cash flow in 2000 to being a drain on cash flow, amounting to a negative $0.1 billion in 2001.

The line-of-business results above are on a pre-tax basis. Current income taxes (i.e., the amount of taxes deemed payable in the reporting year) reduce cash flow. The negative impact of current taxes in 2001 was $5.6 billion less than in 2000. This was a 19-percent decline that was roughly in line with the 21-percent decline in the FRS companies' taxable income (Table B12).

Targets of Investment

Mergers and Acquisitions Prominent Again

Capital expenditures of the FRS companies (as measured by additions to investment in place[24]) in 2001, at $110.4 billion, were at an all-time high, just a shade above the previous record of $109.3 billion in 2001 (Table 5). Mergers and acquisitions, which accounted for $46.7 billion of capital expenditures in 2001, though down from 2000, were at a very high level by historical standards (Figure 5).

The two largest mergers among FRS companies in 2001, Chevron's merger with Texaco, which had a value of $39.3 billion, and El Paso's merger with Coastal, which had a value of $24.0 billion (Table 6), had no effect on reported capital expenditures since they were accounted for on a pooling-of-interest basis. In a pooling-of-interest merger, the current book value of the acquired company's assets and liabilities are added to the surviving company's balance sheet. In mergers between FRS companies, such as the Chevron-Texaco and El Paso-Coastal mergers, accounted for as pooling of interests, the effect of the merger is to merely shift existing asset values between companies and is not counted as a capital expenditure. After June 2001, pooling-of-interest accounting is no longer allowed under U.S. financial accounting standards.

Among the FRS companies' lines of business, oil and gas production operations accounted for a major share of mergers and acquisition spending. Canadian producers were the main target in 2001. Acquisitions of Canadian companies that exceeded $1 billion in value included Conoco's acquisition of Gulf Canada, Devon Energy's acquisition of Anderson Exploration, Burlington Resources' acquisition of Canadian Hunter, and Anadarko Petroleum's acquisition of Berkley Petroleum. Other FRS companies who acquired Canadian oil and natural gas assets included Apache and El Paso. Acquisitions in 2001 increased the FRS companies' Canadian oil and natural gas reserve base by 1.7 billion barrels (crude oil equivalent) or by 31 percent. Natural gas appeared to be the main attraction in Canada as natural gas accounted for 57 percent of reserve acquisitions in 2001 and 65 percent in the previous year.

Natural gas was also the focus of the FRS companies' U.S. upstream acquisitions in 2001, as natural gas accounted for 87 percent of U.S. oil and natural gas reserve acquisitions. Three of the largest acquisitions involved natural gas-rich Rocky Mountain properties: Williams' acquisition of Barrett Resources, a producer of coal bed methane in Wyoming's Powder River Basin; Kerr-McGee's acquisition of H. S. Resources and its natural gas reserves located primarily in the Denver-Julesberg basin of Colorado; and Marathon's (formerly USX) acquisition of Pennaco Energy, also a producer of coal bed methane in the Powder River Basin. Dominion Resources further diversified its asset base into natural gas through its $2.3-billion acquisition of Louis Dreyfus Natural Gas and its natural gas reserves in Texas and the Gulf Coast. Continued acquisitions and development of coal bed methane properties served to increase the FRS companies' role in U.S. production of coal bed methane (Figure 6).

Table 5. Additions to Investment in Place by Line of Business for FRS Companies, 2000-2001
(Billion Dollars)

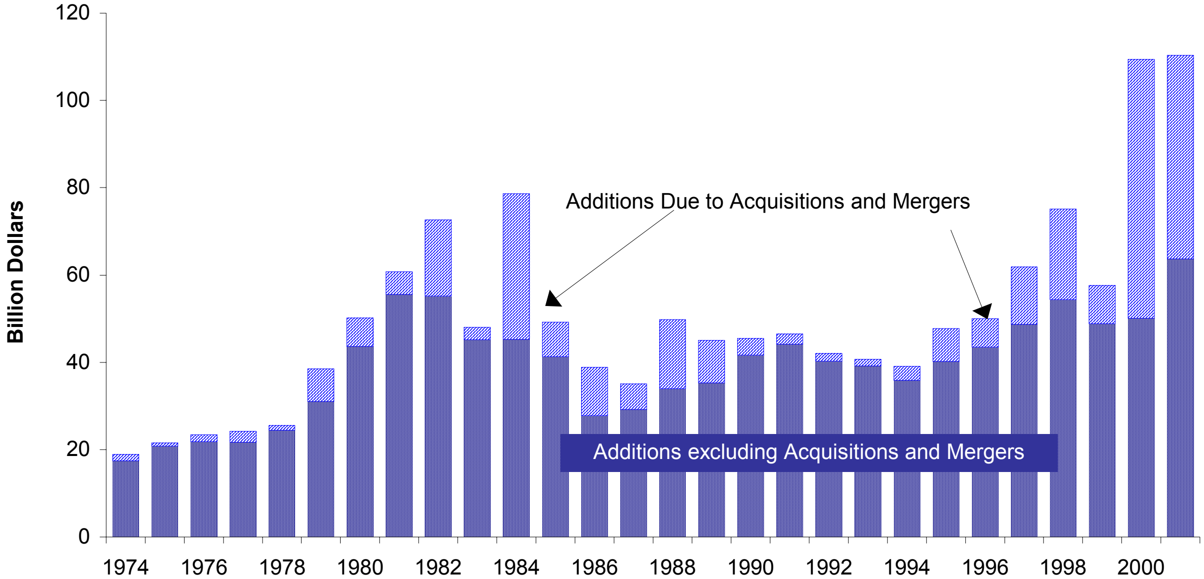
Lines of Business	2000	2001	Percent Change 2000-2001	Percent Change Excluding Mergers and Acquisitions 2000-2001
Petroleum [a]				
U.S. Petroleum				
Production	44.8	33.0	-26.4	80.2
Refining/Marketing				
Refining	8.2	12.1	47.7	-22.8
Marketing	3.4	5.6	64.3	10.1
Transport	0.5	1.6	244.8	244.8
Total Refining/Marketing	12.0	19.2	59.9	4.6
Pipelines	4.0	3.8	-4.9	140.3
Total U.S. Petroleum	60.8	56.0	-7.9	56.1
Foreign Petroleum [a]				
Production	29.5	35.9	21.6	21.8
Refining/Marketing	2.4	4.6	91.1	75.6
International Marine	0.01	0.03	128.6	128.6
Total Foreign Petroleum	31.9	40.5	26.8	28.4
Total Petroleum [a]	92.7	96.5	4.1	43.7
Coal	0.2	0.1	-32.4	-32.4
Other Energy	5.4	5.0	-7.5	-70.2
Nonenergy				
Chemicals	3.7	3.8	3.6	0.3
Other Nonenergy	6.5	3.4	-47.2	-12.5
Total Nonenergy	10.2	7.2	-28.8	-6.6
Nontraceables	0.9	1.5	74.5	139.0
Additions to Investment in Place [b]	109.3	110.4	0.9	26.1
Additions Due to Mergers and Acquisitions	58.8	46.7	-20.6	
Total Additions Excluding Mergers and Acquisitions	50.5	63.7	26.1	
Addendum: Environmental Capital Expenditures	1.7	2.1	19.3	

[a] The Petroleum line of business includes natural gas operations.
[b] Additions to investment in place = additions to property, plant, and equipment, plus additions to investments and advances.
-- = Not meaningful.
Note: Sum of components may not equal total due to independent rounding. Percent changes were calculated from unrounded data.
Source: Energy Information Administration, Form EIA-28 (Financial Reporting System), except for environmental capital expenditures, which came from company filings of Securities and Exchange Commission Form 10-K.

The largest oil-related transaction in 2001 was Amerada Hess' $3.2-billion acquisition of Triton Energy. Triton, though based in Dallas, had oil reserves primarily in offshore West Africa as well as in Latin America and Asia.

U.S. refining and marketing was also an area of merger and acquisition activity, with transactions totaling $11 billion in value in 2001.[25] However, unlike the upstream acquisitions that added to the FRS companies' oil and natural gas reserve base, the refining/marketing transactions served mainly to shuffle physical assets, such as refineries and service stations, between FRS companies. Phillips Petroleum's acquisition of Tosco, valued at $9.4 billion was the largest transaction. Tosco was an FRS respondent with significant refining capacity and gasoline marketing networks on the west coast and east coast. Subsequent to BP's[26] sale of ARCO's Alaskan assets to Phillips (a divestiture required for antitrust approval of BP's acquisition of ARCO in 2000), Phillips viewed a west coast outlet for its Alaskan oil production as a potential enhancement to its bottom line. Acquisition of Tosco gave Phillips a set of assets that integrated its recently gained Alaskan oil production and interest in the Trans Alaskan

Figure 5. Additions to Investment in Place and Value of Acquisitions and Mergers for FRS Companies, 1974-2001



Source: Energy Information Administration, Form EIA-28 (Financial Reporting System); and company filings of Securities and Exchange Commission Form 10-K.

Pipeline System with Tosco's west coast refineries and network of west coast retail gasoline outlets. This configuration is reminiscent of ARCO's Alaska/west coast operation prior to its acquisition by BP.

Valero Energy also became a west coast refiner in 2001. Valero merged with Ultramar Diamond Shamrock (UDS), an FRS company, in a transaction valued at $6.1 billion and acquired Huntway Refining for $78 million. Valero gained four California refineries with 387 thousand barrels per day (mbd) of crude distillation capacity. In addition, the UDS merger brought four refineries, in Colorado, Oklahoma, and Texas, with a total capacity of 357 mbd, 2,500 company-owned gas stations, and a refinery in Quebec, Canada.

Two other large downstream acquisitions involved intra-FRS transfers of refining assets: Tesoro Petroleum's acquisition of BP's refineries in North Dakota and Utah, which added 166 mbd to Tesoro's refining capacity, and Valero's acquisition of El Paso's Corpus Christi, Texas refinery (134 mbd capacity).

Outside of petroleum and natural gas, electricity was the most active area of merger and acquisition activity. Electricity is reported in the "other energy" line of business. Dominion Resources and El Paso were responsible for nearly all of the acquisitions in "other energy" in 2001. Dominion Resources acquired the Millstone Power Station for $1.2 billion. Millstone, located in Connecticut, includes two active nuclear power plants and one inactive nuclear plant. The acquisition increased Dominion's electric service area to New England. El Paso spent over $2 billion in acquiring electricity assets in the United States and abroad. The bulk of El Paso's acquisitions were for equity interests, rather than physical assets, in the United States and Brazil.

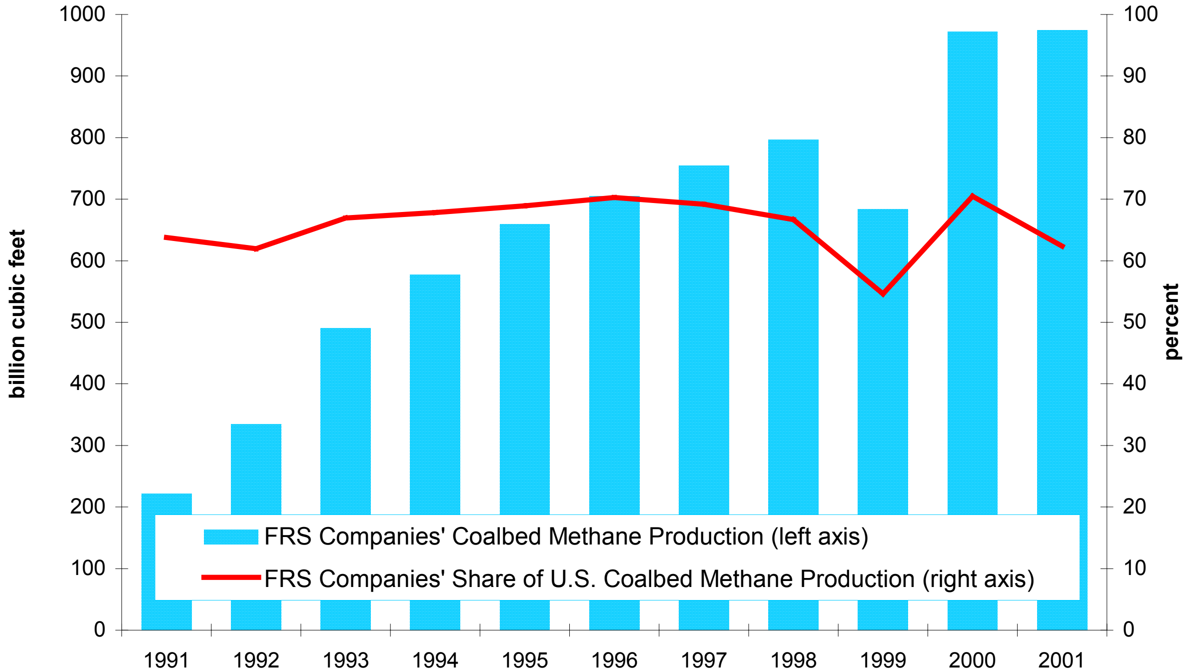
Excluding the effects of mergers and acquisitions, the FRS companies' capital expenditures totaled $63.7 billion in 2001, a 26-percent increase from the prior year. Oil and gas production accounted for almost all of the increase in capital expenditures, excluding mergers and acquisitions, in 2001.

Table 6. Value of Mergers, Acquisitions, and Related Transactions by FRS Companies, 2001
(Million Dollars)

Line of Business and Acquiring Company	Merger or Acquisition	Reported Value of Acquisition
	Mergers and Acquisitions between FRS Companies	
ChevronTexaco	Merger of Chevron and Texaco	39,300
El Paso	Merger of El Paso and Coastal	24,000
Phillips Petroleum	Acquisition of Tosco	9,390
Valero Energy	Acquisition of Ultramar Diamond Shamrock	6,130
Tesoro Petroleum	BP's Mandan, North Dakota and Salt Lake City, Utah refineries and associated facilities	671
Valero Energy	El Paso's Corpus Christi refinery	294
Sunoco	Retail outlets from Coastal	59
	Other Acquisitions by FRS Companies	
Foreign Oil and Natural Gas Production		
Conoco	Acquisition of Gulf Canada	9,414
Devon Energy	Acquisition of Anderson Exploration, Ltd.	6,243
Amerada Hess	Acquisition of Triton Energy Ltd.	3,200
Burlington Resources	Acquisition of Canadian Hunter Exploration Ltd.	2,100
Anadarko Petroleum	Acquisition of Berkely Petroleum	1,015
Apache	Fletcher Challenge Energy	668
Apache	Repsol YPF's oil and gas concession interests	447
El Paso	Acquisition of Velvet Exploration, Ltd.	249
Anadarko Petroleum	Acquisition of Gulfstream Resources Canada Ltd.	128
Unocal	Acquisition of Tethys Energy, Inc	117
BP	Acquisition of Cairns Ltd which holds a 9.7% interest in the Tangguh LNG project	107
U.S. Oil and Natural Gas Production		
Williams Companies	Acquisition of Barrett Resources	2,800
Dominion Resources	Acquisition of Louis Dreyfus Natural Gas	2,300
Kerr-McGee	Acquisition of HS Resources	1,800
ChevronTexaco	Redeemable, convertible preferred shares of Dynegy	1,500
Amerada Hess	Exploration and production assets of LLOG Exploration Co.	767
Marathon	Acquisition of Pennaco Energy, Inc.	506
Unocal	Acquisition of Hallwood Energy Corp.	276
Unocal	Oil and gas properties from International Paper	267
ChevronTexaco	EnerVest San Juan Acquisition L.P.	121
Unocal	Joint venture with Forest Oil	113
Refining, Marketing, and Transport		
Ultramar Diamond Shamrock	Additional consideration to Tosco for the Golden Eagle Refinery purchased in 2000	150
Tosco	Operating assets of the Irish National Petroleum Corp. Ltd.	100
Valero Energy	Acquisition of the Huntway Refining Co.	78
Other Energy		
El Paso	Investment in power projects in the U.S. and Brazil	2,278
Dominion Resources	Millstone Power Station	1,200
Chemicals		
Sunoco	Acquisition of Aristech Chemical Corp	669
Nonenergy		
Williams Companies	Headquarters building and others assets from Williams Communication	276

Sources: Company annual reports to shareholders and press releases.

Figure 6. U.S. Coalbed Methane Production for FRS Companies, 1991-2001



Source: Special compilation from Form EIA-23 (Annual Survey of Domestic Oil and Gas Reserves) by the Reserves and Production Division, Office of Oil and Gas, Energy Information Administration

Spending at the Wellhead Up 35 Percent in 2001

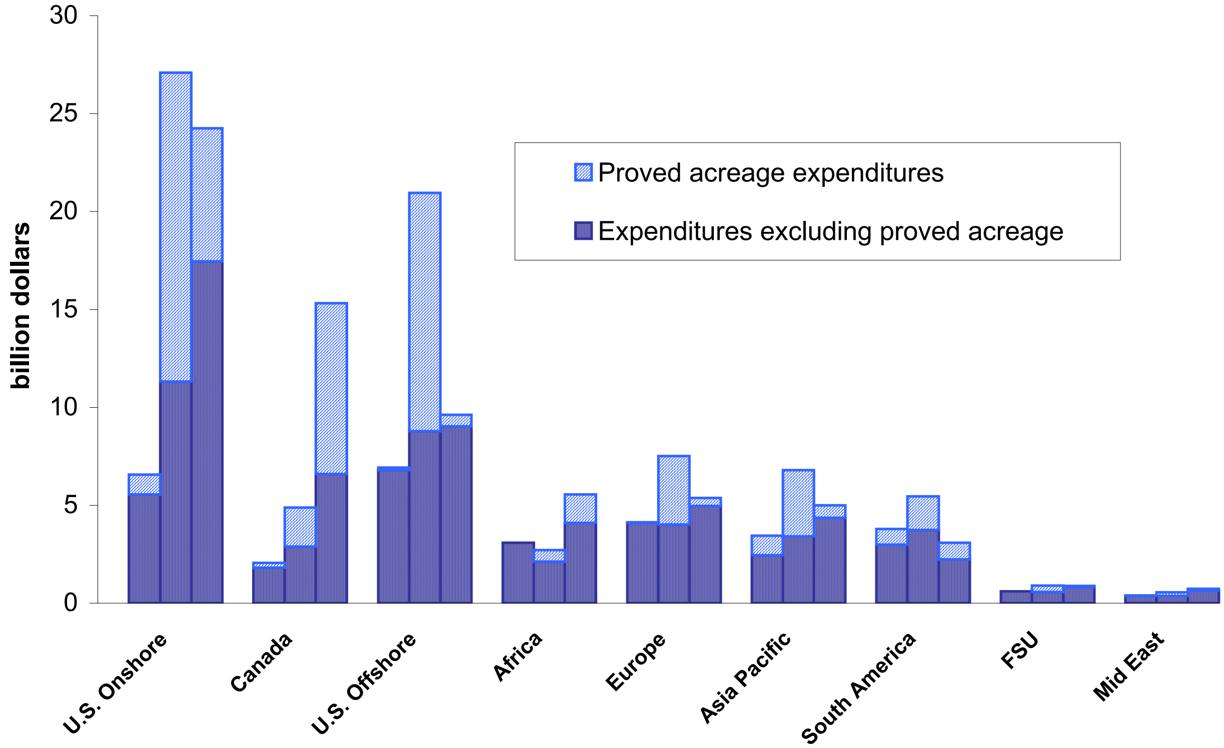
Worldwide exploration and development expenditures,[27] excluding the effects of mergers and acquisitions (as measured by expenditures for proved acreage), were up 35 percent between 2000 and 2001. All regions except South America showed an increase in expenditures (Figure 7).

Onshore locales in the United States registered the largest increase in exploration and development expenditures (excluding expenditures for proved acreage). Expenditures were up $6.1 billion, a 54-percent increase. The step-up in onshore spending was widespread with only two companies reporting lower expenditures in 2001. Natural gas was the favored target. The FRS companies' natural gas well completions onshore increased 77 percent in 2001 compared with completions in 2000, but oil well completions were up only 4 percent.

Canada registered the largest increase in the FRS companies' exploration and development spending (excluding expenditures for proved acreage) among the foreign regions. In 2001, expenditures for Canadian prospects more than doubled, increasing by $3.7 billion, relative to expenditures in 2000. As was true for the U.S. onshore, the upswing in Canadian expenditures was widespread, with 12 of 15 companies reporting increased spending. However, in contrast to the U.S. onshore, the increase in expenditures appeared more evenly directed between oil and gas, as oil well completions and natural gas well completions each more than doubled between 2000 and 2001.

Africa was the other region where exploration and development expenditures (excluding expenditures for proved acreage) surged in 2001. Two general subregions in Africa can be distinguished: sub-Saharan Africa and North Africa. The FRS companies tend to concentrate in one or the other region, with the 14 FRS companies involved in Africa evenly split between the two regions. Sub-Saharan

Figure 7. Exploration and Development Expenditures by Region for FRS Companies, 1999-2001



Note: In each triple of bars, the first bar depicts 1999, the second 2000, and the third 2001. Regions are in order of total exploration and development expenditures in 2001. FSU = Former Soviet Union and Eastern Bloc countries.
Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

African projects are mostly in offshore West Africa, particularly Nigeria and Angola, although other sub-Saharan countries are attracting investment as well. Deepwater projects have become the main target of exploration and development. Deepwater fields in West Africa tend to be oil-rich and large but also require large expenditure outlays to develop.

Most of the FRS companies' North African exploration and development is in Algeria and Egypt. The drilling and production are largely in onshore prospects, although offshore Egypt has attracted some attention in recent years. Oil accounts for 89 percent of upstream production. Field sizes, as measured by reserves added per well completed, tend to be large relative to North America but only about one-third the size of sub-Saharan fields on average.

Both sub-Saharan Africa and North Africa were areas of heightened exploration and development activity. For the FRS companies involved in sub-Saharan projects, exploration and development expenditures (excluding proved property purchases) for Africa in 2001 totaled $3.4 billion, about double the level of the prior year. For the seven FRS companies involved in North Africa, expenditures totaled $0.7 billion, about 50 percent above spending in 2000.

The sizeable drop in expenditures in South America appeared to be the result of the effects of BP's acquisition of ARCO in 2000. The value of ARCO's South American assets were reflected not only as acquisitions of proved properties but also in some of the other categories of exploration and development expenditures, such as unproved acreage and natural gas processing equipment. Excluding

BP, the FRS companies' exploration and development expenditures (excluding proved property acquisitions) for South America were up 16 percent between 2000 and 2001.

Oil and Gas Reserve Additions in 2001 at Peak Levels

The continued heavy capital outlays by FRS companies for upstream mergers and acquisitions are reflected in patterns of recent additions to their U.S. oil and natural gas reserve base. As shown in Figure 8, well over half of the FRS companies' additions to their U.S. oil and gas reserves in 2001 came through mergers and acquisitions, rather than through the drill bit. Nevertheless, in 2001, reserves added by the FRS companies through exploration and drilling, as opposed to mergers and acquisitions, hit a new peak.

The FRS companies' worldwide oil and natural gas reserve additions, excluding purchases of proved reserves, totaled 7.9 billion barrels (oil equivalent) in 2001. This surpassed 1997's prior peak of 6.8 billion barrels (over the 1974 to 2001 period of FRS data collection). The 7.9 billion barrels replaced 137 percent of their worldwide oil and gas production. In the United States, the FRS companies added 3.3 billion barrels (oil equivalent) of oil and natural gas to their reserves in 2001, second to 1998's 3.9 billion barrels of reserve additions. The FRS companies' U.S. oil and natural gas reserve additions in 2001 (excluding purchases of proven reserves) replaced 113 percent of their U.S. production.

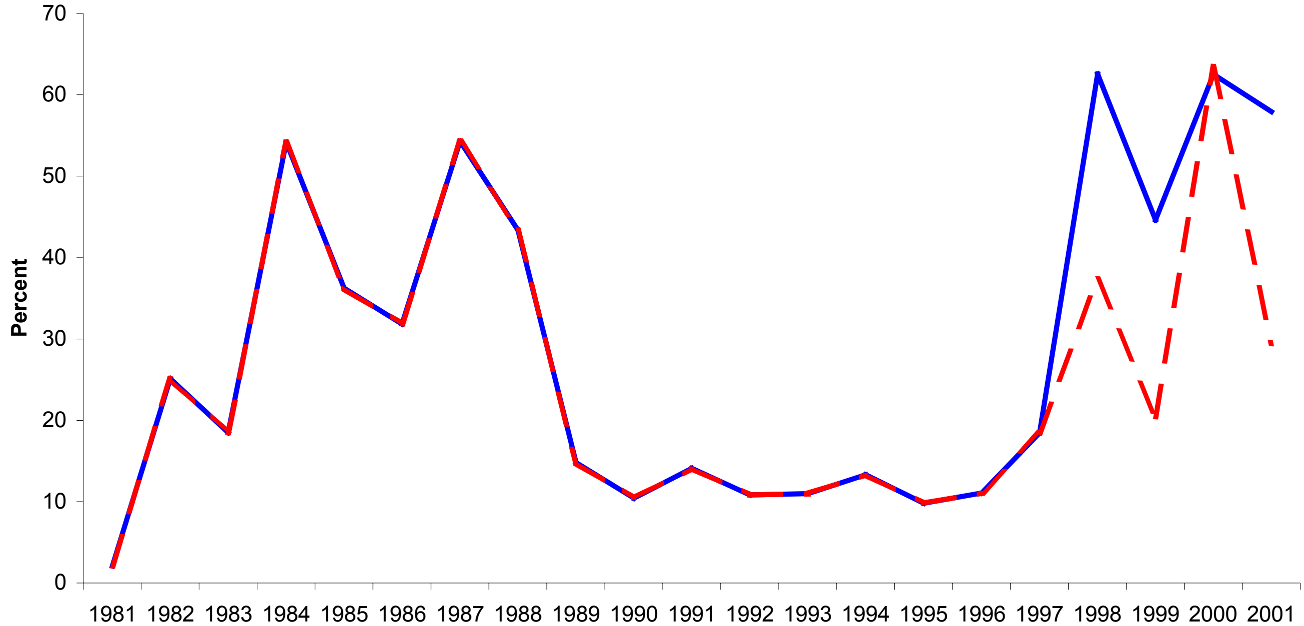
Although mergers and acquisitions have grown in importance as sources of additional oil and natural gas for surviving FRS companies, this trend does not appear to have strongly curtailed exploration and development. In fact, after adjusting for inflation, the FRS companies' exploration and development expenditures in 2001, excluding purchases of proven reserves, were at a level not seen since the first half of the 1980's when oil prices, in 2001 dollars, ranged from $40 per barrel to $60 per barrel.

The recent surge in upstream mergers and acquisitions is in contrast to the earlier 1990 to 1996 period when reserves gained through mergers and acquisitions averaged only 10 percent of all reserve additions. Contrasting the 1990 to 1996 period with the 1997 to 2001 period reveals some clear shifts in upstream strategies in terms of exploration vis-à-vis development.

Exploration involves leasing unproved acreage, employing seismic and other exploratory activities, and exploratory drilling. Exploration is the way in which future oil and gas prospects are added to the portfolio of potential future reserves. Development involves drilling of production wells and installation of associated oil and gas production equipment. Although reserves can be added during the development process, development is essentially an extractive activity. Without replenishment of prospects, the reserve base eventually declines. Has the recent surge in upstream mergers and acquisitions come at the expense of exploratory efforts?

Figure 9 shows that in both the United States and abroad, mergers and acquisitions appeared to be more of a substitute for development than for exploration. When looking at shares of total spending, in the 1990 to 1996 period (when mergers and acquisitions accounted for less than 10 percent of exploration and development spending), over 60 percent of expenditures were allocated to development. In the more recent 1997 to 2001 period (when mergers and acquisitions were more than 25 percent of upstream expenditures), development spending's share was 45 percent, an 18-percentage point decline in the United States and a 16-percentage point decline abroad. In contrast, exploration's share declined only 4 percentage points in the United States and 5 percentage points outside of the United States. Thus, as mergers and acquisitions grew in importance in recent years, the FRS companies increased their emphasis on exploration relative to development.

Figure 8. Share of Total U.S. Oil and Natural Gas Reserve Additions Due to Mergers and Acquisitions for FRS Companies, 1981-2001

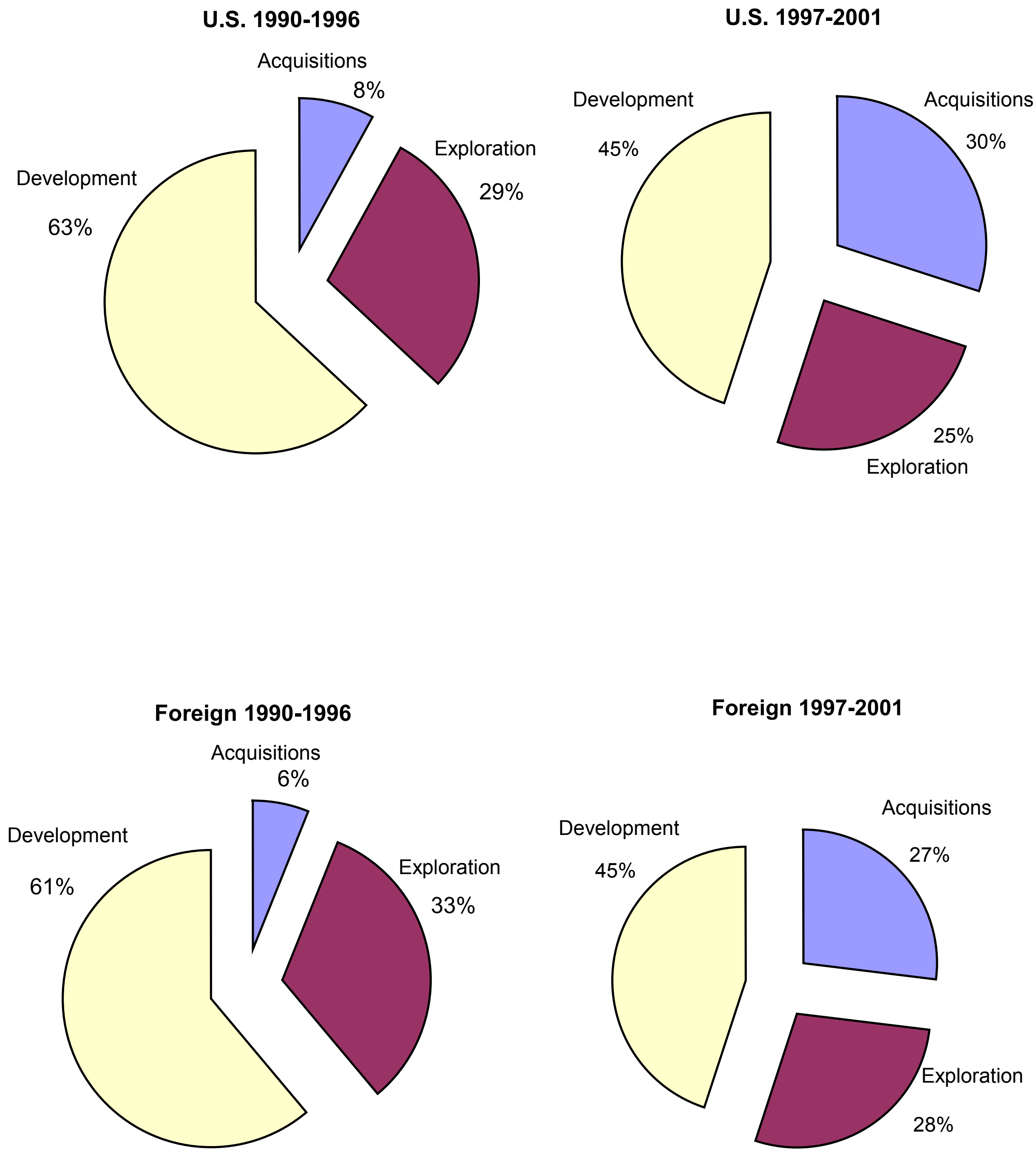


Note: Solid line includes U.S. reserves added in BP-Amoco (1998), Exxon-Mobil (1999), BP Amoco-ARCO (2000), Chevron-Texaco (2001), and El Paso-Coastal (2001) mergers as purchases. Dashed line excludes these effects.
Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Apart from Mergers and Acquisitions, Capital Expenditures Beyond the Wellhead Hold Steady

Excluding the effects of mergers and acquisitions, capital expenditures for lines of business outside oil and gas production totaled $22.7 billion in 2001, 2 percent less than in 2000. Apart from the effects of mergers and acquisitions, only pipelines appeared to stand out as a target of investment in 2001. Capital expenditures for pipelines, excluding mergers and acquisitions, increased by 140 percent between 2000 and 2001 (Table 5). However, the large increase is mainly the result of the reduced impact of mergers and acquisitions on pipelines investment in 2001 compared to 2000. In 2000, acquisitions with large impacts on expenditures for pipelines included Phillips Petroleum's acquisition of ARCO's Alaskan assets from BP and El Paso's acquisition of PG&E Corporation's midstream natural gas operations in Texas. In 2001, the heightened spending for pipelines, apart from mergers and acquisitions, was concentrated in natural gas pipelines and was associated with investments in unconsolidated affiliates rather than property, plant, and equipment. (Unconsolidated affiliates are subsidiaries in which a company has less than a majority ownership interest.) In natural gas pipelines, Williams reported an increase of $208 million in capital expenditures "… primarily to expand deliverability into the east and west coast markets and upgrade current facilities,"[28] while El Paso reported a $386-million increase in capital expenditures for its "Pipelines" business segment.[29]

Figure 9. Composition of Exploration and Development Expenditures for FRS Companies, 1990-1996, 1997-2001



Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

Other energy, which is primarily electric power and associated trading and marketing activities, continued to be a source of growth. Results reported in Table 5 indicate that capital expenditures for other energy dropped 8 percent between 2000 and 2001. However, these results are strongly influenced by the absence of Enron as an FRS respondent in 2001. Excluding Enron, the FRS companies' capital expenditures for other energy were up more than 50 percent between 2000 and 2001. About 70 percent of the capital expenditures for other energy in 2001 are traceable to acquisitions, including the previously noted Dominion Resources' acquisition of the Millstone Power Station and El Paso's increased investments in electric power enterprises in the United States and Brazil. Other FRS companies reporting increased expenditures in other energy included BP who hiked capital expenditures for its "Gas and Power" business from $25 million to $124 million between 2000 and 2001,[30] and Shell Oil reported a $164-million acquisition of wind farms in Wyoming and Texas.[31]

The other nonenergy line of business registered the greatest cutback in capital expenditures among all the lines of business, from $6.5 billion in 2000 to $3.4 billion in 2001, a 47-percent decline. Excluding Enron, the decline in capital expenditures for the other nonenergy line of business was still a sizeable 33 percent. The major source of the decline was Williams Companies' spinoff of their communications business in early 2001. In 2000, Williams reported $3.4 billion in capital expenditures for their communications business,[32] but because of the spinoff of this business to its shareholders, Williams reported no capital expenditures for it in 2001. USX Corporation's reorganization into two companies, Marathon Oil Corporation and U.S. Steel Corporation, also contributed to the decline in expenditures. Prior to the 2001 reporting year, USX, which contained both these corporations, was an FRS respondent. After the reorganization, only Marathon qualified as a major energy company. In 2000, USX's other nonenergy capital expenditures included $254 million in capital expenditures by U.S. Steel Corporation[33] but, in 2001, U.S. Steel and its capital expenditures were no longer part of the FRS.

The sharply reduced capital expenditures for other nonenergy in 2001 is part of the long-running retrenchment in this area by the FRS companies (see "Telecommunications -- The End of the Line for Diversification?" in Chapter 4 for further discussion). This line of business is not wholly without interest or activity, though. For example, BP, in their segment consisting of "… real estate interests, technology companies, and other activities" indicated an increase in capital outlays for these activities of nearly $1 billion from 2000 to 2001.[34]

Sources and Uses of Cash

Table 7 shows where the FRS companies obtained the cash ("sources") to pay for their deployment of capital ("uses") during 2001. Some of the strongest differences between 2000 and 2001 were in the sources of cash.

First, note that the $89.6-billion cash flow realized from operations in 2001 was only 1 percent above cash flow in 2000 (7 percent excluding Enron). The contrasts between the two years were in external funding and cash raised from asset sales, not cash flow.

Debt Load Rises Due to Mergers and Acquisitions

Proceeds from long-term debt issuance totaled $55.0 billion in 2001, the highest level over the 1974 to 2001 period of FRS data collection even after adjusting for inflation, and well above the $33.3 billion raised by debt issuance in 2000. The large increase in debt is traceable to mergers and acquisitions. Those FRS companies with mergers and acquisitions that exceeded $1 billion in value in 2001 accounted for 74 percent of long-term debt issuance.

Table 7. Sources and Uses of Cash for FRS Companies, 2000-2001
(Billion Dollars)

Sources and Uses of Cash	2000	2001	Percent Change 2000-2001
Main Sources of Cash			
Cash Flow from Operations	88.6	89.6	1.1
Proceeds from Long-Term Debt	33.3	55.0	65.2
Proceeds from Disposals of Assets	26.7	7.7	-71.2
Proceeds from Equity Security Offerings	30.6	6.3	-79.5
Main Sources of Cash			
Additions to Investment in Place	109.3	110.4	0.9
Reductions in Long-Term Debt	29.3	34.3	16.9
Dividends to Shareholders	19.0	17.1	-9.7
Purchase of Treasury Stock	5.4	7.5	39.4
Other Investment and Financing Activities, Net	-8.6	11.9	--
Net Change in Cash and Cash Equivalents	7.6	1.3	--

-- = Not meaningful.
Note: Sources minus uses plus other investment and financing activities (net) may not equal net change in cash and cash equivalents due to independent rounding.
Percent changes were calculated from unrounded data.
Source: Energy Information Administration, Form EIA-28 (Financial Reporting System).

The converse of debt issuance is reduction of long-term debt. In practice, part of the cash expended for debt reduction is for rollovers of debt and part is for the actual reduction of outstanding debt. Since long-term debt issuance greatly exceeded debt reduction in 2001, $55.0 billion vs. $34.3 billion, the overall level of debt in the FRS companies' balance sheets increased. The ratio of long-term debt to stockholders' equity is an often-used measure of the role of debt in the balance sheet. Figure 10 reveals an uptick in this ratio for FRS companies in 2001, but an even steeper rise for other industrial companies, as represented by the Standard & Poors' Industrials.

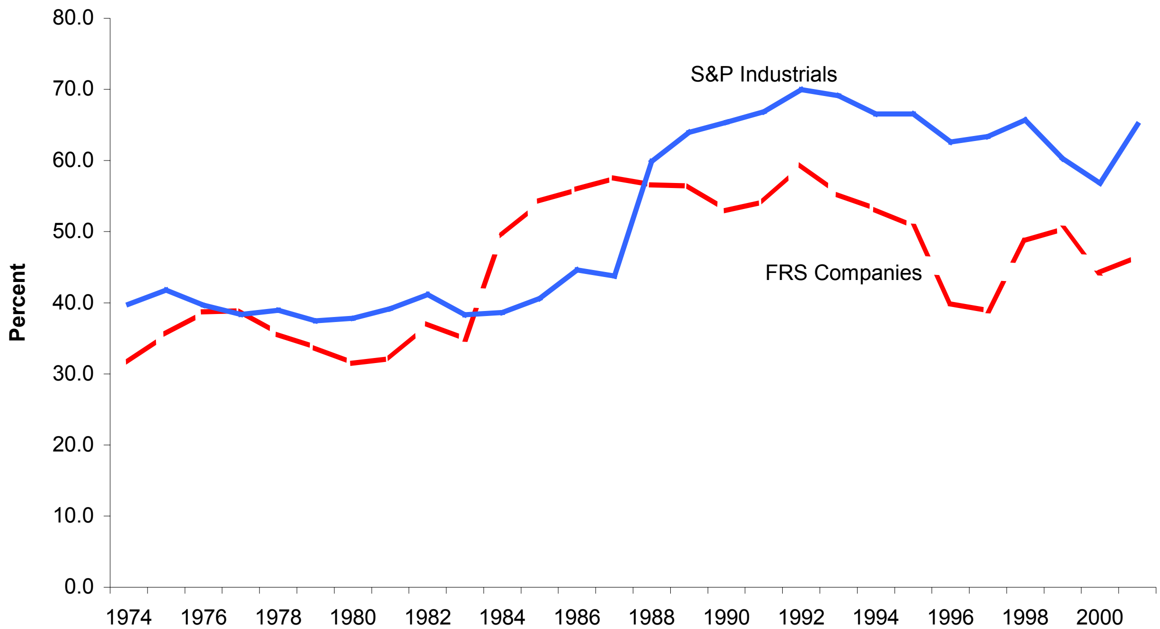
It should be noted that a few FRS companies were able to make sizeable reductions in their long-term debt positions in 2001: BP reduced their long-term debt by $1.9 billion, ChevronTexaco by $3.8 billion, and Occidental Petroleum by $1.1 billion.[35]

Issuance of stock in 2001, with a value of $6.3 billion, was much below the $30.6 billion raised by stock issues in 2000. However, in 2000, BP made a payment of $27.0 billion in stock for the acquisition of ARCO, which accounted for most of the stock issuance. Stock issues in 2001 were almost entirely due to FRS companies involved in mergers and acquisitions, indicating that they used stock as well as debt to close the transactions.

Cash raised through sales of productive assets was also way down in 2001 as compared with the prior year. Cash from asset sales by FRS companies in 2001 was $7.7 billion, the lowest value since 1994.

In 2000, the amount of cash raised through asset disposals by the FRS companies was an extraordinarily large $26.7 billion. The bulk of the asset sales was due to divestitures required for antitrust approval of the merger between Exxon and Mobil and BP's acquisition of ARCO. Exxon Mobil reported $5.8 billion of asset sales in 2000 and BP reported $11.4 billion.[36]

Figure 10. Long-Term Debt/Equity Ratio for FRS Companies and the S&P Industrials, 1974-2001



Sources: FRS Companies: Energy Information Administration Form EIA-28, (Financial Reporting System).
S&P Industrials: Compustat PC Plus, a service of Standard and Poor's.

Endnotes

[9] For a list of the FRS companies in 2000, see the box entitled, "The FRS Companies in 2001," in Chapter 1.
[10] Return on equity, a frequently used measure of corporate profitability, is measured by the ratio of net income to stockholders' equity.
[11] The Standard and Poor's Industrials is a well-recognized database that includes nearly 400 of the largest U.S. industrial companies. Financial statistics for the S&P Industrials were obtained by accessing Compustat PC Plus, a service of Standard & Poor's, Inc.
[12] Line-of-business profit measures should be distinguished from measures that reflect company-wide results because the former reflect only allocated income, expense, and asset items. Two measures of income are presented: *operating income* and *contribution to net income*. Operating income by line of business is similar in concept to the operating income measure for total company operations. It is the net of operating revenues and operating expenses (including depreciation, depletion, and amortization) for a line of business. Contribution to net income equals operating income plus income from unconsolidated affiliates and gains on disposals of property, plant, and equipment less income taxes imputed to the line of business and excludes certain non-allocable items, primarily interest expense. Interest expense is the principal source of difference between a company-wide net income figure and line-of-business contributions to net income (see Appendix A for further discussion).
[13] Exxon Mobil Corp., 2001 Securities and Exchange Commission Form 10K, pp. 22, 24.
[14] ChevronTexaco Corp., 2001 Securities and Exchange Commission Form 10K, p. FS-6.
[15] Conoco, Inc., *2001 Annual Report*, p. 42.
[16] El Paso Corp., *2001 Annual Report*, p. 35.
[17] For a review of the FRS companies' investment in nonconventional energy over the 1974 to 1993 period, see Chapter 6 of *Performance Profiles of Major Energy Producers 1993* available at http://www.eia.doe.gov/emeu/finance/histlib.html.
[18] For FRS purposes, separate reporting of income for chemical and other nonenergy segments was discontinued beginning with the 1987 reporting year. However, the disclosures of chemical segment revenues and operating income made by the FRS companies in their annual reports to shareholders closely track, in the aggregate, comparable disclosures in the Form EIA-28 from 1974 through 1986, when income statement items were collected for chemical businesses by the FRS. Thus, the public disclosures of chemical segment revenue and operating income were utilized for 1987 through 2001. Revenues and operating income for the other nonenergy segment after the 1986 reporting year were obtained by subtracting the publicly disclosed chemical segment values from the nonenergy line-of-business values reported on Form EIA-28.
[19] Occidental Petroleum Corp., 2001 Securities and Exchange Commission Form 10K, p. 63.
[20] Exxon Mobil Corp., *2001 Summary Annual Report*, pp. 22, 29.
[21] ChevronTexaco Corp., 2001 Securities and Exchange Commission Form 10K, p. FS-7.
[22] Exxon Mobil Corp., *2001 Summary Annual Report*, p. 25.
[23] The largest of these non-cash items is the cost of depreciation, depletion, and amortization. Also, outlays (receipts) of cash that were recognized as non-cash items in previous income statements (e.g., provisions for a legal settlement taken as a charge against income in a previous year but not actually paid until the current year) are subtracted from (added to) net income in computing cash flow. Lastly, changes in working capital (excluding cash) due to operations are subtracted.
[24]To the extent possible, capital expenditures are measured by *additions to investment in place*, which is defined as additions to property, plant, and equipment (PP&E) plus additions to investment and advances. In 2001, additions to PP&E accounted for 91 percent of capital expenditures so measured.
[25] Figure 5 and Table 5 show the value of property, plant and equipment, and investments and advances added to the companies' books as a result of acquisitions rather than the value of the transactions. The reported value of an acquisition shown in Table 2-6 can differ from the effect on additions to investment in place due to assumptions of liabilities and goodwill assets acquired.
[26] BP America, the U.S. subsidiary of BP plc of the United Kingdom, is the FRS respondent.
[27] Exploration and development expenditures include capital expenditures for oil and gas production and exploration expenses, which are not capitalized but are charged against income.
[28] The Williams Companies, 2001 Securities and Exchange Commission Form 10K, pp. 66 and 132.
[29] El Paso Corporation, *2001 Annual Report*, p. 114.
[30] BP Corporation North America, Inc., *Consolidated Financial Statements*, December 31, 2001, pp. 31-32.
[31] Shell Oil Company, *20001 Financial Review*, p. 9.
[32] The Williams Companies, 2000 Securities and Exchange Commission Form 10K, p. 207.
[33] USX Corp., *The 2000 U.S. Steel Group Annual Report*, p. S-4.
[34] BP Corporation North America, Inc., *Consolidated Financial Statements*, December 31, 2001, pp. 31-32.

[35] BP Corporation North America, Inc., *Consolidated Financial Statements*, December 31, 2001, p. 4; ChevronTexaco Corp., 2001 Securities and Exchange Commission Form 10K, p. FS-18; Occidental Petroleum Corp., 2001 Securities and Exchange Commission Form 10K, p. 37.

[36] Exxon Mobil Corp., 2000 Securities and Exchange Commission Form 10K, p. 31; BP America Inc., *Consolidated Financial Statements*, December 31, 2000, p. 6.